CLAIMS:

1. A quadrature coupled controlled oscillator comprising

- a first and a second circuit module, each of the circuit modules (100 and 100') comprising an astable multivibrator circuit (103), the first circuit module (100) being coupled with the second circuit module (100') and the second circuit module (100') being cross coupled with the first circuit module (100)
- in each of the circuit modules (100 and 100') a first and a second Voltage Controlled Current Source (101) (VCCS) characterized in that
- each of the circuit modules (100 and 100') has a resonator (104) for determining the oscillation frequency of the astable multivibrator circuit (103) comprised in that module,
- in each of the circuit modules (100 and 100') each of the VCCS is coupled with a respective phase shifter (102) for shifting the phase of a current (110) supplied by the VCCS (101) to the resonator (104) comprised in that circuit module.

2. An oscillator as claimed in Claim 1 further comprising means to control the oscillation frequency of the astable multivibrator circuits for controlling the oscillation frequency of the oscillator.

3. An oscillator as claimed in Claim 1 characterized in that the phase shifted current supplied by the VCCS and the current through an active device (105) of the astable multivibrator circuit (103) are substantially in phase.

4. An oscillator as claimed in Claim 1 characterized in that the resonator (104) is a LC circuit.

5. An oscillator as claimed in Claim 1 characterized in that the resonator (104) comprises a first (201) and a second (202) LC circuit which are mutually inductively coupled.

6. A communication arrangement (300) for communicating via a bi-directional communication channel (304), comprising an oscillator (303) as claimed in one of the previous claims (QVCO) for generating a periodical signal, a receiving module (301) for generating an output signal (OUT1) from the periodical signal and a received signal (IN) received from the channel (304), further comprising an emission module (302) for generating an emission signal (OUT) for emitting to the channel from the periodical signal and an input signal (IN1).

7. An arrangement as claimed in Claim 6 characterized in that the oscillator (303) is conceived to provide a periodical signal to be mixed with the input signal (IN) in the receiving module (301) in order to obtain a lower frequency signal (OUT1).

8. An arrangement as claimed in Claim 6 characterized in that the oscillator (303) is conceived to provide a periodical signal to be mixed with the input signal (IN1) in the emission module (302) in order to obtain the signal (OUT).